

## 13. Спецэффекты Голливуда 50-60-х гг., получившие "Оскара", может без труда повторить любой студент ВГИКа

6-8 minutes

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Those special effects in science fiction films in the 50-60s. XX century, which received the "Oscar", and which our grandfathers and grandmothers admired, now any student of VGIK can easily repeat it. And the point is not that now technology has stepped far forward, just many of the special effects of those years, in our modern opinion, were naive and uncomplicated.

Take, for example, an excerpt from *When Worlds Collide*, USA, 1951. At the 24th Academy Awards (1952), the film won Best Special Effects.

The spacecraft lands on the planet Zira, landing in a mountainous area on a snowy plain. During deceleration, streams of snow and snow dust fly out from under the starship.



Episode from the movie "When Worlds Collide"

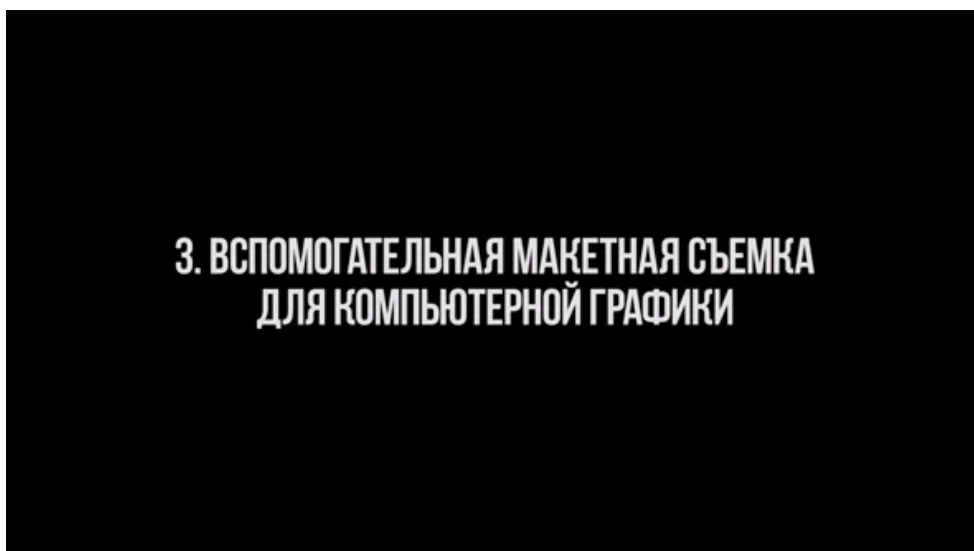
Now any viewer understands that the starship is just a model suspended on thin wires, and the mountain landscape in the background is a picture painted by the artist in the pavilion. All this is easy to guess. Another point is of interest - snow and snow dust scattering during landing.



The mountains in the background are painted by the artist.

If the snow were real, then against the background of a small model of a starship, it would seem unnaturally coarse-grained. In addition, in the pavilion under bright spotlights, it would crumble and melt quickly. And here we see scattering streams and snow dust.

To make it clear to you how such effects are made in the frame, I will show the exercises that are performed by the students of the camera department of VGIK in the discipline "Combined filming". For example, if you want to shoot an avalanche in the mountains, then it is obtained from a mixture of flour and starch. Starch is harder, it creates streams of "snow", and flour gives a fine fraction, "snow dust". This mixture is poured over crumpled white paper.



The exercise. Snow avalanche in the mountains.

Apparently, the snowflake in When Worlds Collide was also made of flour and starch.

The next exercise on "Combined Filming" is a perspective combination of the layout with the nature.

#### 4. ПЕРСПЕКТИВНОЕ СОВМЕЩЕНИЕ МАКЕТА НА НАТУРЕ

The exercise. Perspective combination of layout with nature.

Here, the cars in the foreground are scale models, while the building in the background is real. The area under the cars is painted in the color of asphalt and road markings are drawn on it on a scale. At the same time, as you can see, both the background and the foreground details are in sharpness.

I specifically draw your attention to the sharpness throughout the frame, since non-specialists think that if you are shooting mock-ups (small copies), then there must be a small depth of field. For example, in the famous rover passages from the Apollo 16 mission, I see that there is a model of an electric car (a reduced model) with a doll sitting motionless in the frame, but NASA defenders refer to the fact that this cannot be a model in any way, because in such a case should have a shallow depth of field.

In fact, depth of field (DOF) depends on the degree of professionalism of the cameraman. What task will be assigned to him - to get a small depth of field, or vice versa, a large one - this is the task he will perform. He just knows how to do it.



Rover model with a doll from the Apollo 16 mission

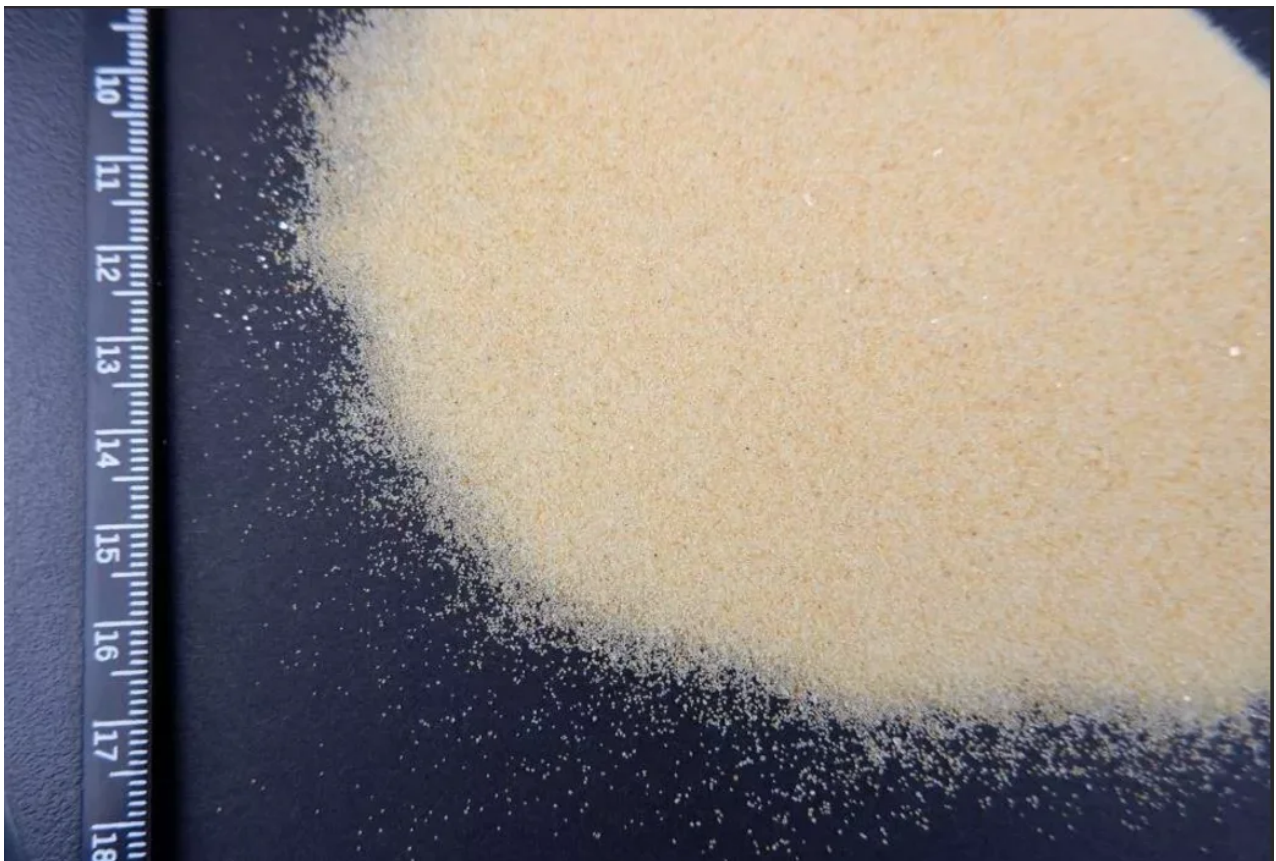
Any film professional looking at the rover's driveways will tell you that this is a composite shot taken in a pavilion. This is not filmed on the moon.

But NASA's propagandists are faced with the task of defending the lunar scam in every possible way, so they begin to write that if this rover were filmed in terrestrial conditions, then dust would certainly fly out from under the wheels and hang in the air, but we don't see dust here.

In fact, to show or not show dust in a motion picture is a purely technical and easily achievable task. When the operator of composite shots needs to achieve the effect of dust in the frame, he uses, for example, flour or cement. And when it is necessary to show that there is no dust during the dispersal of sand, then instead of dusting cement and building sand, quartz sand is taken.

You have probably noticed more than once that ordinary construction sand, mined somewhere in a suburban quarry, is necessarily "dusty". But there is another kind of sand called "quartz", there is no dust in it.

This sand is used for water filters in swimming pools, for aquariums, for sandblasting materials and, of course, in the glass industry for the manufacture of sheet, technical glass, cans, bottles, porcelain and ceramics. You saw such sand in an hourglass.



Fine quartz sand

For example on this [video](#) : shows quartz sand with fractions from 0.8 to 1.2 mm. According to the author of the video, such sand is used in filters for swimming pools and there is "absolutely no dustiness" in it.

And here is what finer quartz sand looks like, with fractions of 0.1-0.2 mm. You could see such sand in coffee houses, where coffee in Turks is brewed in hot sand.





Quartz sand with fractions of 0.1-0.2 mm

It is possible that this very sand, only painted gray, was poured from the wheels of the rover in the Apollo 16 mission.



Colored quartz sand

The animation director Stanislav Sokolov drew my attention to the sand when I showed him a video of the rover's passage on the "Moon". He immediately, without waiting for my question, exclaimed:

- This one, "and he pointed to the bottom of the rover," is clearly coarse sand and a small model. There are very large grains of sand here. The grains of sand should be several times smaller. Just a clear

discrepancy!

In the next article I will post his comments in full. And now - another exercise in "combined shooting" - chroma key. Here the blue chroma key is replaced with a morning landscape.



Exercise - replacing the chroma key.

The hills to the left of the car are fake, empty inside. You can see how they look in "reality" in the following photo.



A pavilion for shooting models.

The exercises were performed by camera student Mark Kelim. The teacher of "Combined Shooting" is cameraman Dmitry Ivanovich Masurenkov.

In my opinion, even a VGIK student can now repeat the rover passes, as in the Apollo 16 mission, there is nothing difficult in these shots: an ordinary radio-controlled model, a stationary doll and a painted background in a circle.



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Cameraman L. Konovalov was with you



In connection with self-isolation, students of VGIK have to give lectures on the Internet through the ZOOM program. April 2020 Lecture for students of A. Eshpay's workshop.

Until next time!